

**Biodiversity Conservation & Economic Growth (BCEG)
Project**

**Rapid Ecological Assessment for the Rila
Monastery Nature Park
and
An Assessment of Financial Mechanisms
for the BCEG**

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Prepared for:

Bulgaria Biodiversity Conservation and Economic Growth Project

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Government of the Republic of Bulgaria
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Acronyms and Abbreviations

ARD	Associates in Rural Development, Inc.
BCEG	Biodiversity Conservation and Economic Growth Project
BSBCP	Bulgarian-Swiss Biodiversity Conservation Program
GEF	Global Environment Facility (note the acronym “GEF” is also generically in Bulgaria for the USAID/GEF Biodiversity project)
GIS	Geographic Information System
GOB	Government of Bulgaria
GPS	Global Positioning System
HQ	Headquarters
IUCN	World Conservancy Union (formerly International Union for the Conservation of Nature)
LOE	Level of Effort
MOAF	Ministry of Agriculture and Forests
MOC	Ministry of Culture
MOEW	Ministry of Environment and Waters
MOU	Memorandum of Understanding
NEPF	National Environmental Protection Fund
NGO	Non-Governmental Organization
NNPS	National Nature Protection Service (of MOEW)
NTFP	Non-Timber Forest Products
PMU	Project Management Unit
REA	Rapid Ecological Assessment
RFP	Request for Proposal
RMNP	Rila Monastery Nature Park
STTA	Short-Term Technical Assistance
TOR	Terms of Reference
USAID	United States Agency for International Development

Preface

The Biodiversity Conservation and Economic Growth (BCEG) Project is funded by the United States Agency for International Development, (USAID), as part of its strategic support to the Republic of Bulgaria. The Project is sponsored by USAID in conjunction with the Government of Bulgaria – the Ministry of Environment and Waters (MOEW). The Project is governed by a Memorandum of Understanding (MOU) between the two governments, and its implementation covers the period: May 2000 – October 2002.

This Project is a logical evolution of earlier USAID assistance to biodiversity conservation in the country. It follows some 10 years of assessment, technical assistance and financing of Bulgaria's biodiversity conservation strategic development, new protected areas legislation, and new national park institutions. The Project is designed to capitalize on the achievements of the Bulgaria Global Environmental Facility (GEF) Biodiversity Project (implemented during the period June 1995-April 2000), and builds on lessons learned.

The BCEG Project addresses six specific contract themes known as tasks or “contract result packages”. The BCEG Project includes the finalization and implementation of two national park management plans, and the development of a new management plan for Rila Monastery Nature Park. It assists in the development of financial mechanisms and strategies to ensure the solvency of national parks. The Project pilots economic growth activities with select target communities around two Bulgarian national parks. And it continues to build on the principles of strong public information and awareness as stepping stones for informed public engagement and promotion of biodiversity conservation and protected area management activities.

This Project is issued as a Task Order 01 (Contract Number LAG-I-00-99-00013-00) under the USAID Global Biodiversity and Forestry Indefinite Quantities Contract (IQC); and is implemented on behalf of USAID by Associates in Rural Development, (ARD) Inc., of Burlington, Vermont, USA.

The Project is implemented through a Project Management Unit (PMU) based in Sofia, and includes a Team Leader, three Bulgarian technical specialists, and support staff.

Project activities are coordinated through two mechanisms –

- (a) Project Coordination Group – serves as a steering committee for Project planning and monitors implementation. This consists of the National Nature Protection Service of the MOEW, and national park directors, the PMU and USAID.
- (b) Project Counterpart Team – PMU staff working with MOEW/NNPS counterparts

The Project is largely implemented through the Directorates for Rila and Central Balkan National Parks. Additional technical assistance is provided by Bulgarian and international consultants, and is based on specific terms of reference.

1. Introduction

<i>Dates of Assignment:</i>	11 – 30 May 2001
<i>Person on Assignment:</i>	Steve Dennison, Natural Resource Policy Specialist, BioFor IQC FLC: 0006, Economists/Environmental Policy Specialist
<i>Total LOE:</i>	60 days (LOP); First assignment: 26 days (approved), 21.6 (used to date)

This assignment addresses important elements of protected area management policy, the use of management options with significant economic implications, and the opportunity for employing financial mechanisms in support of protected area sustainability. The current challenges for protected area management policy and sustainability are presently highlighted in the BCEG Project by national and nature park management planning efforts, as well as pilot program economic growth activities in both the Rila and Central Balkan National Parks. This initial technical assistance trip was conducted one month in advance of the final review and approval of the National Park Management Plans for these two parks.

There were two primary focus areas within the scope of work:

- First, to assist with data collection and analysis methodologies for developing the Rila Monastery Nature Park management plan, and
- Second, to examine ways to hone financial mechanisms that will be used to help ensure sustainability of management activities in the national parks.

The majority of the 3-week schedule was devoted to examining the policy and planning issues and the constraints and resources associated with the Rila Monastery Nature Park (RMNP) data collection and analysis. It also included a 3-day workshop specifically dedicated to reviewing and planning the methods for the summer field season's data collection. There were focused discussions with the RMNP Core Planning Team, BCEG technical staff, and the non-timber natural resource pilot program team regarding pilot program financial mechanisms with national parks.

A three-day field trip to the RMNP with the Core Planning Team helped to “ground-truth” and confirm mapped field data. These data, from the Forest Fund 1990 and 2000 inventory, and the Rila National Park GIS, were used to examine accessibility issues for the data collection teams, assess and plot vegetation types to be sampled, and to review preliminary management planning activities with Nature Park Directorate staff. The detailed Scope of Work for this assignment is attached (in Appendix A) to this report.

The assignment also provided a stepping-off point for the environmental policy specialist. It facilitated greater familiarity with the issues linked to protected area management and planning in Bulgaria, provided an opportunity to become familiar with the physical terrain of some of the protected areas, and allowed a broader understanding of the key institutional players and the BCEG Project's approach to addressing economic growth in areas adjacent to the Rila and Central Balkans National Parks and the Rila Monastery Nature Park.

This report first discusses the Rila Monastery Nature Park within a general management and economic context and then provides a brief description of the ecological assessments blah, blah. Additional detail follows on Rapid Ecological Assessment Methodology and its application by summer field teams responsible for collecting additional biophysical, economic and sociological data within the Park. The final section of this report provides commentary and discussions aimed at developing and enhancing financial mechanisms related to management planning being implemented with BCEG assistance.

2. Context

2.1 Management and Economic Context

The re-categorization of the Rila Monastery Nature Park in June 2000 resulted in the creation of the country's 9th Nature Park (IUCN Category V). The most distinct difference between national and nature parks in the Bulgarian legislation categorizing protected areas is that nature parks allow for private and/or municipal land ownership. Thus Bulgarian Nature Parks face many more land-use management challenges, while also containing many more management options – particularly the opportunity for more expansive sustainable natural resource use.

The present management capacity of the nature park administration is limited. There are only 5 full-time staff members for the Nature Park Directorate, one vehicle, one computer, and two offices. Guards for the Monastery Nature Park are drawn from the Rila Forest Enterprise, leading to confusion as to both management authority and law enforcement on the terrain. In addition, the Rila National Park maintains two full-time guards for the Rila Monastery Forest Reserve, a strict nature reserve (IUCN Category I), within the territory of the Nature Park. The nature park management and administrative budget is unknown and funds appear to be provided on an *ad hoc* basis for capital and operational costs.

Land ownership and restoration is at the center of a controversy regarding the future management of the territory. Land restoration to the historical owners of territory approximating the boundaries of the Rila Monastery Nature Park is stalled. Final land restitution has been refused by the Eastern Orthodox Church until the land within the strict nature reserve (Rila Monastery Forest Reserve, 3,676.5 ha) and 46 hectares that have been occupied by municipal and private owners have been included in the restitution order.

Management of the terrain is complex. The Ministries of Agriculture and Forestry, Environment and Waters, and Culture, along with the Bulgarian Orthodox Church, are the four primary management authorities operating on this territory. There are no clear divisions of responsibility between these governance bodies, nor the host of other management authorities listed in Box 1.1. More importantly, there are presently no mechanisms for resolving issues, conflicts or for setting priorities among any of these management authorities.

Box 1.1 Management authorities operating within the Rila Monastery Nature Park.

<i>Management Authority</i>	<i>Tasks/Responsibilities</i>
MoAF/National Forestry Board	This Ministry of Agriculture and Forests department is responsible for all forestry management in the country. They supervise/manage the national forestry estate overseeing management, industry, and biodiversity conservation through a system of nine nature parks.
MoAF/Rila Monastery Park Directorate	Under the Ministry of Agriculture and Forests, this group (a director, a public relations specialist, a biodiversity specialist, an administrative assistant, a driver) handle the conservation inputs, tourism and public relations operations of the Park

<i>Management Authority</i>	<i>Tasks/Responsibilities</i>
MoAF/Rila Forest Enterprise	This body, operating under the Ministry of Agriculture and Forests, supervises and manages the forest estate outside of the Nature Park, and in theory, on state lands that are not part of municipal lands – they also provide the “guards” that patrol the Nature Park. They see themselves as the ones responsible for the Nature Park.
MoEW/National Nature Protection Service	This Ministry of Environment and Waters body supervises and provides “control functions” over all strict nature reserves. They provide two guards for the Rila Monastery Forest Strict Reserve. These guards are supplied through the Rila National Park Directorate, and are on their salary. They “observe and guard” the 3000+ hectares that make up the strict reserve.
MoC/Institute of Monuments and Culture	This Ministry of Culture authority is responsible for the maintenance and supervision of all cultural and historical elements of the monastery, and its museum as a national cultural and World Heritage Site. They also maintain two historical religious sites on the territory (e.g. St. Ivan Rilski’s grave and hermitage) and have direct control functions and powers over anything that falls within the national registry of monuments of culture on the territory. This would include any new discoveries.
Bulgarian Orthodox Church/Holy Synod	The Bulgarian Orthodox Church is “branch” of the Eastern Orthodox Church (but out of the fold), and registered as an NGO in the country. They oversee all Orthodox religious matters in the country, maintain the religious integrity of the Church, and maintain property for which they have been given title and/or responsibility. They are proud of their democratic, devolved operation, with three monasteries that are given significant autonomy in their day to day operations.
Bulgarian Orthodox Church/Rila Monastery Abbott	The Abbott, Father John, supervises the religious affairs of the monastery with the five monks who reside there. They generate funds from the rental of Church property to entrepreneurs, from the sale of religious souvenirs, from parking fees for visitors’ vehicles, etc. The extent of the Monastery’s affairs and income generating activities is not known.
MOEW/Department of Dams and Cascades	This department maintains the system of water catchment dams in the Rila massif that provide water and electric power generation. They operate control stations, caretaker houses, and the road system internal to the Park.
<u>Sapareva Banya Tourist Union</u>	They operate the Fish Lakes Tourist Chalet, the only tourist facility in the territory. They are a society/ association with loose management rights to the facility. The Bulgarian Tourist Union owns the facility.
<u>Regional Roads Authority</u>	This group maintains the access road to the monastery, and the black top road ending in Kilova Poliana.
<u>Rila Municipality</u>	This local government authority provides police administration and law enforcement services for the monastery and its surroundings.
<u>Bulgarian Mountain Rescue</u>	This group operates a system of mountain rescue operations in the event of emergencies - avalanches, fires, and lost hikers. They are a branch of the Red Cross.

A case in point is the confusion that exists over the management responsibilities in the Nature Park between the two local MoAF authority representatives (Rila Monastery Park Directorate and the Rila Forest Enterprise). This potentially big problem is mitigated by the amicable relationship that now exists between the two staffs. BCEG assistance to develop a comprehensive management plan for the Nature Park over the next year will build on this relationship and work constructively with all the management authorities to help define roles and responsibilities clearly and resolve conflicts where they occur.

In terms of regular revenue, there are no apparent sources of income generation for the protected area which accrue with any regularity to any of the management authorities found within the Nature Park. There is no revenue collection apart from that generated by:

- Parking fees, with the “Monastery” as the recipient;
- Tourist facility concessions, with the “Monastery” as the recipient; and
- Entrance Fees to the Monastery Museum, with gate receipts going to the Ministry of Culture.

No other revenue generation or collection from the area is known since its designation as a national park in 1992.

2.2. Ecological Assessments

Fieldwork conducted in preparation for the Rila National Park Management Plan yielded important information for areas most heavily impacted by tourist trails in the fragile high-mountain areas of the Park. Much of the field work conducted in 1997 and 1998 focused information collection on what is now the boundary between Rila Monastery Nature Park and the Rila National Park.

There is less information in any record for conservation values, habitat types, and CITIES/Red Book data known from other areas of the Nature Park. Filling the gaps in this data area is seen as crucial to management planning and management options for an area that is considered by many Bulgarians to be the best and most accessible conservation territory in Bulgaria.

A significant part of the development of a protected area management plan is providing a detailed understanding (data) of conservation attributes and threats to the significant resources with the Park’s boundaries. The Scope of Work for this technical assistance was aimed at establishing a framework for the extremely rapid collection of data and work with multidisciplinary teams who would be responsible for the actual data collection. During the three weeks of this first assignment, the following was accomplished:

- Assistance and guidance with the development and definition of an interdisciplinary team was given for a summer of Rapid Ecological Assessment field work
- A review of the principles of Rapid Ecological Assessment (REA) was provided to Bulgarian scientists and its applicability to data collection in the Rila Monastery Nature Park was debated and discussed;

- With the RMNP Core Planning Team, a more comprehensive understanding of both anthropogenic and natural threats to biodiversity in the Rila Monastery Nature Park was developed and sampling transects for summer data collection that will provide data to better understand these threats were delineated;
- An understanding about economically valued activities that occur within the Nature Park was initiated and the need for a careful examination of economic valuable activities and subsequent data collection during the Rapid Social, Economic and Tourism Assessment was underscored; and
- An expression of confidence was developed about information being collected that will allow a financial valuation exercise, at least for some important components related to future Nature Park management options, e.g., important commercial species of medicinal plants, potential forest harvesting activities, and revenue options from tourism.

3. Rapid Ecological Assessment (REA) Methodology

3.1. Overview

The planning and the implementation of the REA Methodologies Workshop provided an important opportunity for planners, scientists, and other technical specialists to come together to discuss interests that they all held in common, but rarely talked about in a multidisciplinary setting. It allowed the scientists, botanists and zoologists in particular, to view what was important, and why, about a particular landscape. More importantly it laid the groundwork for a joint data collection exercise that permitted on-the-ground discussions of how a multidisciplinary data collection team needed to function in the field and also provided unique insights about what each specialty considered to be important. It also began the process how priorities could be established, practical logistics planned for, and conflicts respected and reasonably discussed. It started the important process of teamwork for the summer season's data collection within the RMNP.

3.2. Methodology

Rapid Ecological Assessments have been executed almost exclusively in tropical environments. This has happened because information on threatened ecosystems there is lacking or very incomplete. Complementary data on social, cultural, economic and other anthropogenic threats has also been weak, non-existent or often described as exogenous variables in research that often deliberately focused on environment-related subjects in isolation of everything else. As awareness about how rich these tropical ecosystems are in biodiversity, the incredible threats that are confronting them, and the rate at which unique areas are disappearing natural scientists, sociologists, anthropologists, economists and others began working together to plan, identify, catalogue, raise awareness and improve practices related to biodiversity conservation. The activities, norms and practices that have evolved with REA have provided an effective and consistent way to do this and also to allow more efficient comparative analyses among different assessment efforts.

Although born in the tropics, REA principles are applicable to ecosystems throughout the world. Europe and the rest of the world are realizing the uniqueness of several of the ecosystems in Bulgaria. The processes, discipline and opportunities for open discussion in REAs present a solid opportunity for the nation's environmental practitioners to both contribute to the growing body of REA knowledge and to management planning in Bulgaria's protected areas. These specialists can help the government and others to develop a process that can be applied consistently in fieldwork data collection for management planning that allows for comparison between data sets, results and methodologies.

The Rapid Ecological Assessment (REA) process provided one of the themes for the workshop with participants focusing on the attributes of:

- Its reliance on interpretation of delineated (mapped) landscape-level biodiversity features;
- The fact that features are characterized and sampled for species-level elements of biodiversity; and
- Its emphasis on partnerships with scientists on interdisciplinary teams and on conservation capacity building and added value to management planning.

Participants, through a series of exercises, shared their knowledge of existing information to provide a basic understanding of where gaps existed about the biophysical data in the Park. This gap analysis was also narrowed using REA objectives to delineate on a map where the data sampling for the summer would occur. Then, within these areas, the data collection teams were to plan their work to:

- Characterize the distribution of vegetation and certain taxa in the study area;
- Produce baseline biophysical information that could be used by management planners, environmental impact assessors and legislative policy makers;
- Conduct a threats analysis for the biodiversity of the area; and
- Produce informational and data products (maps, lists, etc.) for management and educational purposes and possible economic analyses.

The workshop sessions also initiated the development of specific Terms of Reference (ToR) for the summer field teams. The RMNP Core Planning Team would use these inputs to refine the final ToR for the teams. The major elements discussed included a general sampling framework with an agreed upon vegetation classification and an approach that would specifically detail the sampling transect locations, vegetation and fauna distribution, the sampling intensity and the overall sampling plan. The field teams would also observe anthropogenic and physical threats to populations as well as record observations about their health whenever they were encountered on the transect. Plans were also made to provide GPS instrument training for the field teams and the extreme importance of noting species of economic/commercial value within the Park boundaries. Evidence of collection of these species, and a judgment about the threats to the population of local species were also to be recorded by the field team whenever collection activity was encountered on the sampling transects.

Additional information and details about Rapid Ecological Assessments discussed by workshop participants can be found sections appended to this report. These include:

- REA Power Point presentation, in Appendix B,
- REA data collection forms, found in Appendix C
- REA workshop agenda and participants list in Appendix D

4. Developing and Enhancing Financial Mechanisms

Bulgaria's protected areas are national treasures that also have unique regional and global significance. If these resources are to be conserved sustainable financing arrangements for these areas are needed in addition to, and in conjunction with, the management planning currently being implemented with BCEG assistance.

The BCEG Project is planning for and promoting at least five different financial mechanisms during the project. Many of them are inter-linked and require strategic interactions in order to address the "sustainability" of protected areas in the country.

4.1. Legal Context

A rapid review of the Protected Areas Act, the Concessions Act, and the Environment Protection Act, all illustrate that Bulgaria is grappling with the issue of the financial sustainability of biodiversity conservation in Bulgaria. Appropriately, over the next six months, the BCEG Project will continue to address the legal framework for three important aspects of park financial management and sustainability.

- a. Lobbying to ensure the Concessions Act will apply to national parks, and that concession tools are viable instruments for management park resources, infrastructure, and activities to the advantage of the environment and coffers of national parks;
- b. Continue to pursue an active dialogue with Government of reforms to the operations and administration of the National Environment Protection Fund. This can be achieved both through the Project's use of a Task Force, as well as continued professional contributions to the new Environment Protection Act.
- c. Assist the GoB to examine the real valuation of resources that originate from within National Parks, and contribute directly to local and national economics and economic growth. While this is inevitably a significant undertaking in terms of natural resource economics, the Project is well-prepared to demonstrate the immediate financial benefits being derived using information collected from its pilot programs and management plan implementation activities.

4.2. Pilot Programs

The non-timber natural resource co-management programs being discussed with Park staff, local and regional entrepreneurs/businesses, and Park beneficiaries are also equally important avenues in the exploration of sharing conservation costs for the Parks' resources. They are also illustrative of types of public-private partnerships that might be pursued on a larger scale within the country. BCEG staff has been taking an integrated and holistic approach to examining options for economic growth that coincide with and enhance management practices developed for Bulgaria's protected areas. This technical assistance undertook several steps, with varying emphasis, to reinforce this effort that included:

- Examining elements of medicinal plant collection permits in association with the NTFP development exercise in the pilot areas selected for each National Park;
- A critical eye of the Concessions Act especially where it concerned obvious direct and indirect benefits and costs to the National Parks and the adjacent communities in the pilot areas;
- Exploring concrete actions and proposals that can be acted on/addressed (based on recommendations from the BCEG short-term specialists) to promote livelihoods in the pilot areas; and
- An initial discussion of opportunities and strategies that can be developed to employ commercial market forces in a national parks promotion and publicity effort. Elements of using a RfP (request for proposals) and a venture capital fund were examined for how they might secure a profit sharing production of promotional items that benefit the notoriety of Parks and their coffers.

Utilizing resources from the Venture Capital Fund were discussed in terms assistance to small entrepreneurs who would promote the national parks through logos, regional advertising, etc. Through this access to the funds they would agree to a profit-sharing scheme. Awards to entrepreneurs would be made via a Request for Proposal (RfP) process in which bidders would provide statements of capability, their design ideas, and how they intend to share profits with the park in question. Awards would then be made on the basis of established criteria. In the course of our discussions it was noted that direct marketing of parks by parks, historically, has been a failure. But when the private sector is involved, either through opportunity funds or via concessions, it has worked well and often pays up to three-quarters of the operating budgets of some parks.

If this type of funding is explored, Park sub-accounts need to be firmly and transparently established. At the time of this visit the establishment and use of Park sub-accounts was being questioned. This is a significant point important for financial independence of the parks and also for success of the variety of opportunities that originate from pilot program activities.

4.3. Specific Legislation

Two specific acts were examined with BCEG Project staff and key informants during this visit. The discussions and debate on the **Medicinal Plants Act** and the **Concessions Act** have direct implications for the pilot site activities being implemented by this Project and are also important sources of information for future work planned for the BCEG Environmental Policy Specialist and the Enterprise Development Specialist. Observations, issues, comments and possible alternatives for BCEG actions are discussed below.

- a. The **Medicinal Plants Act** is a specialized resource law that attempts to provide links between collectors (for private and commercial use) of 700 species of vascular plants (and one species of lichens). It specifically notes that about 30 of these species are rare and endangered (and listed in the Bulgaria Red Book) and are off limits to collectors, private and commercial. The Act's jurisdiction only covers the nation's national parks.

From our analysis it appears that the permit is issued primarily as a revenue generator for the National Environmental Protect Fund (NEPF) and no fees collected are retained by the parks, even though it is park personnel who are expected to enforce the Act, issue and monitor

permits. There appears to be no incentive for park personnel to monitor the process or to tie the fee process to conservation of the species it is presumed to protect!

Permits are issued for each species to be collected and an amount and general collection region also specified on the permit. The fee for the permit is paid in advance of its issuance and for an amount that is estimated to be collected, e.g., a maximum amount that can be collected with that particular permit.

The fees levied for each species are listed in a schedule that is published/updated periodically. Fees remain in effect until a new list is published. It is unclear how rapid or transparent the distribution of the new lists is accomplished.

The Park Directorate has the authority to cancel a permit due to poor production of the species being collected, or for abuse of the resource and/or its surroundings (exceeding the amount collected?) of a permit. Regions can also be closed to collection/collectors, but it is unclear whether this means a blanket, or wholesale, closing of the region, or simply that certain species within a region are off limits to collectors.

Collection etiquette is specified on the permit as well as a generic description of how the collection can be accomplished. Given the fact that a species is specified on each permit issued, collection “rules” by species are not in evidence. Quantities collected per permit are recorded at specific exit points from the parks, but this practice is irregular, inefficient and probably inadequate for monitoring information about a given species.

Blueberries have been pinpointed by the BCEG Project as a focal point for analyzing commercial collection/harvesting related to the Medicinal Plants Act and its implications for managing non-timber forest products (NTFPs). A thorough strategy is being devised with the assistance of the Enterprise Development Specialist for assessing and monitoring commercial blueberry operations in the Project’s designated pilot areas. Information being collected by the summer field assessment teams will also yield additional data that will augment the management of NTFPs.

Tying the permit process to conservation and management of certain species or groups of species makes sense intuitively, but may present a conundrum in terms of promoting economic growth. The marginal aspects of the whole commercial operation (and competition from neighboring countries exporting the same products) might be put in serious jeopardy if permit fees were to rise even a small fraction.

One alternative that makes sense for the Parks and their conservation role is drawing a more definitive link between the permit and conservation. A simple “application” fee for the permit would be a minimal, across-the-board amount for the issuance of a permit to collect medicinal species in the national parks (extending this to all strict reserves, nature parks and national parks makes even more sense, but that would require another new law). Additional fees could be levied on top of the minimal permit for specific species. Maximum amounts that could be collected should continue to be specified on the permit. A concession policy to govern collectors would provide an added insurance for conservation but is probably not within the political will of the Ministry of Environment and Waters at the present time.

To be truly conservation oriented and sustainable within an operating management plan permits need to be issued, controlled and monitored for clearly defined regions. Regulations

for the harvest of given species, especially those prone to abuse, need to be established, enforced and education provided to collectors about the regulatory and enforcement processes. Within such a system additional fees could be levied by actual amounts removed, or at least a more informed monitoring of amounts and population dynamics could be maintained for management purposes.

At this point the permit process is seriously deficient. Its current implementation is inadequate for accomplishing anything more than a minimal contribution to the NEPF. There is no real incentive for park staff to monitor the collection, or the permits. There is no system in place for coordinating or monitoring the permits issued or what they are issued for. There is no direct link between amounts collected and amounts available. It is very possible that the entire population of a species could be wiped out in one season. In short, the permits are not tied to species use nor do they encourage conservation practices. They are simply a tax on the collector.

b. The **Concessions Act** mentioned briefly above warrants a thorough review and significant investigation, ideally by both the Environmental Policy Specialist and the Enterprise Development Specialist in consort with BCEG technical staff. Opportunities for developing (use) concessions within Bulgaria's protected areas are many and varied. Reviewing existing "concessions" within the country is an obvious starting point and their ties to opportunities within the BCEG pilot areas provide an obvious link as well. Political will is also apt to be a significant determining factor and the new government in Bulgaria (elections are scheduled for mid-July 2001) may force policy and decision makers to invest their current intellectual capital elsewhere.

Even if concessions are foregone, entrance and use fees to the national and nature parks are one option that should continue to be investigated. There is again the opportunity to incorporate a willingness to pay survey within the market survey that will be conducted in support of community/park ecotourism pricing and promotion strategy development. Minimal amounts (e.g., 1 lev per day per person, or 3 leva per carload) could contribute significantly to covering basic maintenance and management costs. (A net present value analysis can confirm this.) Increasingly, the Project's pilot programs are beginning to develop models that show the economic growth potential and benefits already enjoyed by communities surrounding the Park. These pilot programs will soon yield more specific statistics that can be evaluated for their present economic contributions to community welfare and economic benefits. These must be matched against the revenue that can be generated from user fees paid by Bulgarians and others for access, recreation, and resource collection from the country's national park system.

It is clear that collection of NTFPs contribute significantly to the local economies and that as such represent an important income generating activity that comes from what are essentially free resources. If Bulgaria is to maintain the unique national treasures found within the borders of these protected areas and maintain them as areas for natural product income generation, careful management practices and agreements must ensue. Their value as income generators for the national economy is both traditional and significant. Preserving the biological diversity of these areas and maintaining their productivity as local financial instruments will require a cautious mixing and matching of benefit sharing from parks as an income generating tool, and income generation from a fee structure.

4.4. The Use of the Venture Capital Fund

The use of the venture capital fund received a boost during the May, early June visit of the Natural Resources Policy Specialist. The concept of using a venture capital fund to generate money for national parks was examined. A draft request for proposal (RfP) format is being developed, and will be reviewed by the Ministry of Environment and Waters, National Parks Directorates, and the Enterprise Development Specialist, in October. The aim is to solicit proposals from the private sector that contain a profit-sharing scheme with national parks. A competitive bidding process is proposed to solicit innovation and creativity in development, sales, and distribution of park promotion and information materials, using the venture capital fund. Successful tenders will include a proposal for a profit sharing scheme, in lieu of repayment of what might be considered a loan. Since the venture capital amount is not significant, the Project will determine the value of sharing this fund between parks and local entrepreneurs, leaving it as lump sum, or seeking additional capital support from other donor projects, such as the BSBCP, and/or the Ecotrust, or National Environmental Protection Fund.

Final RfP design is expected to be completed in this next reporting period, and will include recommendations for a national review committee, schedule of events, capitalization scheme, and competitive tender procedures

APPENDICES

USAID - Bulgaria
Biodiversity Conservation and Economic Growth (BCEG) Project
LAG-I-800-99-00013-00 Delivery Order No. 01

Scope of Work – May 2001
Dr. Steve Dennison/Environmental Policy Specialist

Background

The BCEG Project is completing its first year of implementation. Important issues arising from three of its tasks have significant policy and economic implications for protected area management policy development, financial sustainability, and the capability of Bulgarian institutions to analyze policy issues related to biodiversity conservation.

Technical assistance is needed in support of three Task Order, Contract Results Packages. These are:

Task 4.2 *Pilot activity development with select communities adjacent to Rila and Central Balkan National Parks to generate income from ecotourism, sustainable, non-timber forest product extraction/production or other economically viable activities.*

Task 4.4 *Establish and test appropriate innovative financing mechanisms for revenue capture by local protected area units;*

Task 4.5 *Preparation of Rila Monastery Nature Park Management Plan, (and interpretation of protected area management policy for biodiversity conservation and nature park management)*

The first assignment will:

Focus on data collection and analysis methodologies for interpreting biodiversity conservation policies, protected area management options, and economic opportunities for Nature Park management of Bulgaria's highest profile protected area.

Review and analyze the applicability and opportunities for adjusting and/or revamping existing protected area financing mechanisms for revenue capture by Rila and Central Balkan National Parks.

Determine the advisability of developing a competitive bidding process for use of a small venture capital fund to develop profit sharing opportunities through the sales of promotional and informational materials on Bulgarian National Parks, with the private sector.

Tasks to be Implemented

The main tasks to be completed by the Consultant include (and may not necessarily be limited to):

- **Tasks 4.2 and 4.4**

The BCEG Project is examining innovative and practical mechanisms for improving prospects for long-term financial sustainability of national parks. Among mechanisms being considered are those linked to the use of concessions. In the absence of a concessions policy, concessions at present appear randomly determined and awarded. As tourism goods and services increase as part of the implementation of each national parks management plans, the role and use of concessions in raising park revenues will become more relevant.

The BCEG Project is also pioneering two pilot efforts in support of biodiversity conservation and economic growth. Pilot activities have been launched. Situation analyses are being conducted in support of activities for ecotourism and non-timber natural resource collection and management. Both of these pilot activities are without precedent in Bulgaria.

During May, Dr. Dennison will be expected to review the financing implication of the evolving pilot project activities in these two pioneering themes. Specifically, he will:

1. Examine the existing MOEW and national park policies for permitting of natural resources collection from within the national parks;
2. Examine the NNPS/MOEW approach towards using concessions agreements as tools for financing protected area management activities;
3. Identify those aspects of both practices and tools that can be addressed and/or modified by a working group on protected area financial mechanisms.
4. Identify those aspects of protected area financing that are best addressed by focused support from other functional labor category STTA – specifically the business development specialist and institutional development specialist.
5. Help develop the terms and conditions for the use of the Project's venture capital fund, and assist with crafting the strategy for a competitive bidding process that results in innovative private sector profit sharing with the national parks.

- **Task 4.5**

The BCEG Project is addressing four key areas of protected area management planning. These have both economic and policy implications for protected area management and financing in Bulgaria, and for one of Bulgaria's most famous and high-profile protected areas. These are:

- Information collection techniques and resource valuations that inform future protected area planning and management policy;
- Strengthening of host country institutions to analyze policy issues related to biodiversity conservation and natural resources management, as applied in nature parks.
- Conduct economic analyses of alternative approaches to natural resources management, using tourism, NTFP collection, fishing, etc., without forest harvesting interventions;
- Evaluate the economic and policy impacts of forest management and conservation activities;

Therefore, the consultant will:

1. Review the Protected Areas Act, National Park Management policies, as described in legislation and interpreted in national park management plans, Rila Monastery Nature Park Management Plan Terms of Reference, the Sustainable Management of the Forests in Bulgaria – Criteria and Indicators, the scientific publication, the “Biological Diversity of Rila National Park”, and the socio-economic publication entitled, “People and Parks”, in preparation for the assignment.
2. Review and analyze the applicability of various, field-based, rapid assessment techniques and indicators for temperate climate biodiversity, and forest ecosystem valuation assessments.
3. Prepare an orientation to Rapid Ecological Assessment/Rapid Biodiversity Assessment techniques and indicators pioneered in other parts of the world and applicable to temperate forests and pastures for a Bulgarian workshop in May, 2001.
4. With the assistance of the Rila Monastery Nature Park core planning team members, review the baseline information relevant to each major nature park management theme. These include: sustainable forestry management; sustainable tourism development, sustainable non-timber natural resource management. This will include a review of baseline information already collected in support of the nature park management planning effort.
5. Orient the Rila Monastery Nature Park Core Planning Team, and associated teams of data collectors (assembled in interdisciplinary teams) to rapid data collection and assessment techniques, as well as protected area economic valuations.
6. Provide a preliminary assessment of the opportunity and advisability of relative economic activities related to natural resource conservation, tourism, and sustainable forestry activities without the benefit of the summer information RBA and socio-economic results.

Outputs

Tasks 4.2 and 4.4

- Preliminary review and analysis of national parks/NNPS natural resource collection permitting system, and identification of opportunities to improve its use in deference to local revenue generation and economic development.
- Review and analysis of the NNPS concessions practice, with recommendations to improve both the scope and development of a “concessions” policy for national park revenue generation.
- Scope and design for the use of the Project’s venture capital fund.

Task 4.5

- Development of methodologies and schedules for data collection for evaluating protected area management policy and options for nature parks.
- Preliminary determination and analysis of the economics of sustainable forestry management in an area established for high level biodiversity conservation.
- Preliminary assessment of the opportunity and advisability of relative economic activities related to natural resource conservation, tourism, and sustainable forestry activities without the benefit of the summer information Rapid Biodiversity Assessment and socio-economic results.

A written draft report addressing these outputs will be prepared prior to departure. A final report will be completed based on comments of the BCEG Project PMU, and finalized within one month of the end of this assignment.

The final report will be formatted and published in Bulgaria, to A4 specifications. The consultant will supply both soft and hard copies of the final draft report in formats compatible with those used by the BCEG Project.

A debriefing will be conducted for a USAID ENR programming audience prior to departure. This may or may not include other members of the USAID SO Teams.

Level of Effort

The estimated maximum level of effort for this first assignment is 26 person days .

Timing

The period of time estimated for this effort is between May 7, and June 3, 2001.

Locations

The assignment will commence with a brief desk study in the USA. It will be conducted in large part in Sofia, Bulgaria, with field trips to Rila Monastery Nature Parks and Rila National Park HQ, Blagoevgrad, as necessary.

Expected Composition of Assignment

Travel	2 days
Desk Study and Workshop preparation	4 days
Work with the Rila Nature Park Core Planning Team	6 days
Field Work in Rila Monastery Nature Park	3 days
Workshop	3 days
Review of NTNR permitting system and concessions practices	3 days
Venture Capital Fund strategic development	2 days
Report/Write-up	3 days

<i>total</i>	<i>26 days</i>
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Appendix B

**Rapid Ecological Assessment
Power Point Presentation at the Bankya Workshop
23 to 25 May 2001**

Rapid Ecological Assessments [REA]

- History/Applications
- Attributes and Objectives
- Major Components

REA's General Thesis

- Conserving landscapes will result in the conservation of the species that are contained within them

- Description defined via a two-stage process:
 - Macro, or coarse filter, description of the landscape
 - Fine filter description and lists for species and vegetation communities

Historical Perspective

- 12 years old with heavy emphasis on tropical ecosystems
- Primary experience in Latin America & Caribbean
- Implementation mainly by 2-3 international NGOs
- Size of area ranged from tens of hectares to millions of hectares
- Other alternatives:

Rapid Assessment Program (RAP) of CI

BioRap – employs complex spatial modeling software

All Taxa Biodiversity Inventory (based on parataxonomy)

Main Attributes of REA

- Relies on interpretation of delineated (mapped) landscape-level biodiversity features
- Features are characterized and sampled for species-level elements of biodiversity
- Emphasizes partnerships with scientists on interdisciplinary teams and on conservation capacity building and added value to management planning.

What REAs Do Not Do

- Do not definitively inventory or characterize the distribution of all taxa
- Do not definitively describe the ecological processes occurring in the area being examined
- Do not provide a rigorous statistical assessment of ecological relationships
- Do not provide an environmental impact assessment (e.g., detail effects of proposed activities on the environment)

Main Objectives of REA

- **Characterize the distribution** of vegetation and certain taxa in the study area
- **Produce baseline biophysical information** necessary for the development of subsequent management plans, environmental impact assessments and legislative policy
- **Conduct a threats analysis** for the biodiversity of the area
- **Produce informational and data products** (maps, lists, descriptions) for management and educational purposes and economic analyses

Major Steps of an REA - 1

For REA Experience Shows that “Rapid” is Relative

- **Phase I:** Conceptualization and initial planning [maximum of 2 months]
- **Phase II:** Planning, training workshops, and initial landscape characterization [1 to 3 months]
- **Phase III:** Field implementation [3 to 6 months]

Major Steps of an REA - 2

- **Phase IV:** Report generation by discipline and information integration/synthesis [a maximum of 2 months]
- **Phase V:** Final Report preparation, publication and dissemination of products [as needed]

REA Sampling Framework

- Vegetation classification
- Sampling Approach
 - Locations
 - Distribution of vegetation types and fauna
 - Sampling intensity
 - Sampling plan

Measures of REA Success

- Provides NEW information that contributes to an improved, conservation–oriented management of an area
- Provides training opportunities to scientists and resource managers and a capacity building dimension, or one that provides at least the potential to accomplish similar work
- Provides, as an indirect benefit, the enhanced potential for inter-institutional conservation collaboration
- As another indirect benefit, contributes to improved policy environments that can also serve to provide focal points for galvanizing interest in local environmental issues

REA Matrix Approach

- Uses a qualitative matrix
- Cell values contain Threats Rankings
- Rankings determined by individual or team doing assessment
- Criteria for ranking threats are subjective
- Numerical values for rankings may be used to arrive at a semi-quantitative assessment

REA Situation Mapping

- Used with matrix approach for describing threats to individual species or vegetation types
- Visually links sources and threats to show cause and effect
- Helps to convey magnitude and complexity of threats abatement approaches

Stresses	Vegetation Types and Species									
	Vegetation Type 1	Vegetation Type 1	Vegetation Type 1	Vegetation Type 1	Vegetation Type 1	Species 1	Species 1	Species 1	Species 1	Species 1
Stress 1										
Stress 2										
Stress 3										
Stress 4										
Stress 5										
Stress 6										
Stress 7										
Stress 8										
Stress 9										
Stress 10										

Stress Rankings	
VH	Very High
H	High
M	Medium (or High Future Concern)
L	Low

Stress-Ranking
Severity (potential impact)
Scope (scale across the site)
Reversibility (restoration potential)
Immediacy (current or potential)
Likelihood (probability)

The REA threats matrix approach. Individual stresses and their level of stress to vegetation types and species are recorded.

Threats	Systems							
	Alpine Meadow	Subalpine Zone	Spruce-fir Forest	Conifer - Beech Forest	Beech Forest	Alpine Lakes	Secondary Streams	Rivers
Exotic Species	VH	H	L	L	M	H	L	L
Illegal Hunting	H	H	M	VH	M	L	L	L
Removal of Species for Sale or Consumption	M	M	L	H	VH	L	M	M
Habitat Destruction	M	M	L	L	L	VH	M	M
Accumulation of Solid Waste	L	L	L	L	L	M	L	M
Tourism	L	L	L	L	L	M	L	M
Contaminants	M	M	M	L	L	H	M	M

Stress Rankings	
VH	Very High
H	High
M	Medium (or High Future Concern)
L	Low

Stress-Ranking
Severity (potential impact)
Scope (scale across the site)
Reversibility (restoration potential)
Immediacy (current or potential)
Likelihood (probability)

A theoretical threats matrix for the Rila Monastery Nature Park.

Appendix C

Sample Rapid Ecological Assessment Data Collection Forms

Appendix D

Rapid Ecological Assessment Workshop Agenda and Participant List